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A Tradition of Excellence in Documentation

The Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) is a merger of two programs with long traditions in the preservation community and in the National Park Service. As HABS enters its 53rd year and HAER its 17th year of recording historic buildings and structures, it seems appropriate to devote an entire issue of the CRM Bulletin to the various aspects of these programs and to examine the detailed documentation that is their hallmark.

HABS/HAER is undertaking an estimated 26 projects this summer, half of which are in the national Parks. To those of you who are unfamiliar with the programs, this issue will serve to introduce you to them.

A listing of the HABS/HAER collection at the Library of Congress has been computerized. There are two guides that draw on this data base. *Historic America: Buildings, Structures, and Sites* (Library of Congress, 1983), is available from the Superintendent of Documents, Government Printing Office, Washington DC 20402 (request publication #03-000-00149-14; \$29.00); and the *HAER Checklist: 1969-1985* (U.S. Department of the Interior, National Park Service, 1985), is available from the National Technical Information Services, U.S. Department of Commerce, Springfield, VA 22161 (request publication #PB 174661/AS, \$11.95).

Sally Kress Tompkins served as co-ordinator for this issue.

HABS

John A. Burns, AIA

For over 50 years the Historic American Buildings Survey (HABS) has documented the history of the building arts in the United States with architectural measured drawings, photographs, and written data. The program began in 1933 in the Department of the Interior, National Park Service (NPS) as a public works project to employ architects, draftsmen, photographers, and historians. The success of the program prompted the Department in 1934 to enter into an agreement with the Library of Congress and the American Institute of Architects (AIA) to conduct the Survey on a permanent basis. Today, HABS employment offers a training program for student architects and historians hired during the summer months.

The goal of HABS is to provide to architects, engineers, scholars, and interested members of the public a collection of comprehensive documentation of significant buildings, sites, structures, and objects that exemplify, contribute to, and assist in explaining American history and the growth and development of the built environment. The NPS administers the planning and operation of the Survey with funds appropriated by Congress and supplemented by gifts from individuals, foundations, historical organizations, and other Federal agencies. The NPS is responsible for setting up qualitative standards, published as part of the Secretary of the Interior's Standards for Archeology and Historic Preservation, selecting subjects for recording and organizing the projects. It directs the preparation of the records, and edits and places them with the Library of Congress. The Library preserves the records, makes them available for study and supplies reproductions through its photoduplication service. The AIA provides professional counsel through its Committee on Historic Resources and national membership.

With some modifications, the 1934 tripartite agreement still remains in effect. HABS summer teams have replaced the architects of the 1930s as the primary recorders. Begun in the 1950s under the Mission 66 program, these teams consist of student architects, architectural historians, and photographers working under professional direction. Overall supervision of the summer teams is through NPS regional and Washington offices.

Mitigative Documentation

Another continuing source for HABS records is from the mitigative documentation provisions of the 1980 Amendments to the National Historic Preservation Act of 1966. Federal agencies who fund or license projects which adversely affect historic structures are required to document them to HABS standards before they are demolished or significantly altered. The mitigation requirements are administered through the five NPS cultural programs regional offices, whose staffs stipulate and accept documentation on behalf of HABS.

Donations

From the beginning, HABS has relied on the generosity of organizations and individuals as a major source for architectural documentation. Donated records have been and continue to be a significant part of the HABS collection. Architects, architectural historians, photographers, and others who work with historic buildings are encouraged to consider producing documentation to HABS standards as part of their restoration, rehabilitation, or maintenance projects. A principal point of contact between HABS and architects in the private sector is through the AIA's Committee on Historic Resources.

Charles E. Peterson Prize

A major new source for donated measured drawings is the Charles E. Peterson Prize. HABS and the Athenaeum of Philadelphia have established the Prize which is awarded for the best sets of measured drawings prepared to HABS standards and donated to HABS by a student. The Peterson Prize is intended to increase awareness and knowledge of historic buildings throughout the United States while adding to the HABS collection of measured drawings. Acceptable entries are transmitted to the permanent HABS collection in the Library of Congress.

The Prize honors Charles E. Peterson, FAIA, an architect in the NPS Washington office who founded the HABS program in 1933 as a means of putting unemployed architects back to work documenting historic buildings that even then, in the midst of the Depression, were disappearing at an alarming rate. Peterson also produced the first Historic Structures Report in the NPS, on the Moore House at Yorktown. The measured drawings from that restoration were traced onto HABS format and were included as one of the first NPS structures in the HABS collection. After a long and notable career, Peterson retired from the NPS, but still continues an active career in the private sector and remains a strong and vocal advocate of the HABS/HAER programs.

This is the fourth year that the Peterson Prize has been offered, and its success both as a source of donated drawings and as a stimulus to architectural students to undertake HABS work is already established. To date, over 100 students from 14 universities have participated in the competition by completing 31 entries. They have produced 283 measured drawings for inclusion in the HABS collection. The types of structures documented have been as varied as the students who have entered. There have been drawings of houses, an inn, a resort hotel, a school, a county fairgrounds, a church, a water tower, a railroad depot, a park pavilion, two town squares, even a covered bridge. The students have worked alone and in groups, in required courses, electives, independent study and summer institutes. They have been, for the most part, architecture students but have also been architectural history, interior design and American studies majors. Some have arranged for support from foundations and State Historic Preservation Offices.

The author is an architect with HABS/HAER.

HAER

Eric DeLony

Since its creation in 1969, the Historic American Engineering Record (HAER) has amassed a written and graphic collection of 1,500 sheets of drawings; nearly 20,000 large format, record quality photographs; and 14,000 pages of historical data of America's industrial, engineering and technological heritage. The HAER collection is one of the most comprehensive graphic and written archives of the technological heritage of any nation. The wide range of its holdings which includes early stone-based blast furnaces, waterpowered grist mills, ice houses, snuff mills, tide and wind mills and early-20th-century iron and steel plants, demonstrates its richness and diversity. Bridges of every type and description, from wooden-covered, stone-arch and iron-truss spans, to suspension bridges, steel cantilevers and multiple-arch concrete bridges have been photographed, delineated and researched. Even such recent structures as the mobile rocket launchers at Kennedy Space Center have been documented. The primary criterion in selecting a site for documentation is its potential to reveal information critical to understanding and interpreting the history of engineering, industry and technology.

Engineering Society Support Groups

HAER operates under a tripartite agreement with the American Society of Civil Engineers (ASCE) and the Library of Congress. The ASCE provides council and support to HAER through its national membership. Currently, plans are afoot to expand the original tripartite agreement to include the five founding engineering societies of the United Engineering Center in New York. This would bring in the American Society of Mechanical Engineers, the Institute of Electrical and Electronics Engineers, the American Institute of Chemical Engineers, and the American Institute of Mining, Metallurgical and Petroleum Engineers. Combined membership of these five groups is 615,566. Presently, the civil, mechanical and electrical engineers have history and heritage programs that recognize and commemorate historical achievements in these professions. By developing relationships with the HAER program, it is hoped that the other engineering societies will increase their interest in the histories of their professions.

Summer Teams

As in the HABS program, HAER produces drawings, photos and data during the summer by employing student teams of architects, engineers, historians, graphic designers, and photographers under the supervision of university professors and qualified professionals. Over the past 17 years, HAER has trained over 450 students, making it one of the largest preservation training programs in the federal government.

HAER can guarantee its clients the best talent the nation's higher education system has to offer since it recruits nationally and carefully screens applicants. As a result, HAER and its clients are assured a quality product and, aspiring students of architecture, engineering or history, willing to devote three months of their education to a HAER recording project, can gain valuable insight and experience.

Mitigative Documentation

Historic engineering structures like historic buildings are required to be documented if adversely affected by Federally funded or licensed projects. This documentation provides another source for the HAER collection.

Industrial Archeology in the National Parks

HAER focuses on documenting industrial archeological and engineering sites of national significance or National Park Service owned properties. There are currently over 130 designated National Historic Landmarks of engineering, industrial or technological significance, though much remains to be done with the landmark study themes related to these subjects. There are sites such as the Edison Labs in West Orange, NJ; the textile mills and power canals of Lowell; Saugus Ironworks in MA; and the Ohio & Erie Canal just south of Cleveland. In addition, by scanning the Park Service's List of Classified Structures (LCS), one finds important lesser known resources such as Nike missile silos in Gateway National Recreation Area in NY; an early-20th-century water reclamation plant in Grand Canyon; remains of a Bollman truss bridge at Harpers Ferry, WV; mining ruins in Death Valley; 20 lighthouse structures located throughout the system; and the ships at the National Maritime Museum in San Francisco. Reviewing the LCS also indicates that many park managers and regional staff may not be aware of historic industrial, engineering, and technological resources in the parks. HAER is interested in working with regions and parks to identify, document and interpret these types of resources. HAER documentation can assist park managers in maintaining historic sites and can contribute to interpreting sites for the public. HAER offers a unique source of experience and expertise that is available to park managers, interpretive specialists, and cultural resource professionals.

Accessing the Collection

Along with the HABS documents, the HAER collection is in the Prints & Photographs Division, Library of Congress. A recently published aid for users of the HAER collection is the HAER Checklist: 1969-1985, A Listing of Sites, Structures and Objects Documented by the Historic American Engineering Record.

The author is Principal Architect with the Historic American Engineering Record.

A HABS/HAER Summer

The Projects

Kim Hoagland

From Massachusetts to California and from the depths of Mammoth Cave to the heights of the State House dome in Annapolis, MD, HABS/HAER student architects and historians—and even some photographers and engineers—will be recording historic structures through measured drawings, large-format photographs, and written histories. HABS/HAER is currently planning to run over 30 projects this summer. When completed, the documentation will be edited in the HABS/HAER office, and then transmitted to the Library of Congress, where it will be available to the public.

Many of the projects in the parks will aid in the management and planning of those structures being recorded. The most common application of HABS recording provides the existing condition drawings for Historic Structures Reports, such as the Salinas National Monument in New Mexico, where HABS will be recording two 17th century limestone churches at Gran Quivira; and the Lincoln Home National Historic Site in Illinois (see CRM Bulletin, Vol. 7, No. 4 and Vol. 8, No. 5), where HABS will be recording the six phases of construction of the house in which Lincoln and his wife lived when he served in the Illinois state legislature. Others include the Eisenhower National Historic Site, where HABS will record the main barn and other outbuildings; and Gettysburg National Military Park, where the structural systems of the Gettysburg agricultural buildings, which date from the Civil War period, will be examined. At the Lincoln Home National Historic Site, HABS will also record five buildings to be used in the NPS historic properties leasing program.

In San Juan, Puerto Rico, HABS is in the midst of a five-year recording program of the 16th century forts. This summer, HABS will complete documentation of three outer defenses at San Cristobal, and supplement the records of El Canuelo in conjunction with archeological excavations there. Another multi-year documentation program involves four 18th century Spanish Colonial missions in San Antonio, where HABS will annotate its drawings to reflect the findings of historical research. The 1980s drawings concentrate on the changes the missions have undergone since they were first recorded by HABS in the 1930s.

HAER will also be active in the parks this summer. The 1870s Villine's Grist Mill in Boxley Valley, Buffalo National River, AR, will be documented to aid the park in deciding whether to restore it to a working mill. Four canal locks, one grist mill, and an aqueduct will be recorded at the Ohio & Erie Canal, a 309-mile canal which linked the Great Lakes with the Ohio River. Part of the canal is a National Historic Landmark in the Cuyahoga Valley National Recreation Area, OH. HAER will be active at Boott Cotton Mills in Lowell, MA, for the last of three summers, where an adaptive reuse of the mill building is planned. Boott Mill is one of the largest surviving textile mill complexes in the U.S. The Saltpeter Works in Mammoth Cave, KY, which was active during the War of 1812, is another site of industrial significance that will be documented by HAER.

The largest project for this summer is a combined HABS/HAER effort in the Illinois & Michigan Canal National Heritage Corridor, west of Chicago, where a field team of 17 started work in early June. The I & M Canal is a major historic transportation corridor which gave rise to the settlement and development of the upper Illinois Valley and helped establish Chicago as the midwest's major center for commerce and industry. This linear survey of canal and railroad structures throughout the corridor will result in an inventory

and HAER measured drawings. In addition, historic buildings in canal towns will be inventoried.

HABS/HAER also documents structures of national significance outside the National Park System. This summer, the HABS projects include the Robert Mills-designed Monumental Church in Richmond, VA; the Asa Packer House in Jim Thorpe, PA, which was built for the founder of the Lehigh Valley Railroad and Lehigh University; the Borough House in Stateburg, SC, the largest plantation complex of rammed-earth construction in the U.S.; the Texas State Capitol, probably the largest building HABS has ever undertaken to document, and part of a three-year effort to provide drawings for a historic structure report and maintenance plan. Other structures include the Texas State Fairgrounds, which has been active as a fairgrounds since 1905 and features a large collection of art moderne buildings; and the Leland Stanford House in Sacramento, CA, a Second Empire house inhabited by one of California's Gold Rush millionaires. These drawings will be used for a Historic Structures Report.

HAER will also document nationally significant structures, such as 40 to 60 of the most historic bridges of Ohio derived from an inventory undertaken by the Ohio Department of Transportation. Since Ohio was the most prolific state in the production of prefabricated metal trusses during the last quarter of the 19th century, an unusual number of metal truss bridges survive. Other HAER projects scheduled for this summer include Kaymore Mine, an early-20th-century coal mine in New River Gorge National River, WV; the Manchester Mill in Richmond, VA an 1840s cotton and woolen mill with turn-of-the-century additions; and the dome structure of the 18th century Maryland Statehouse in Annapolis, which will be examined for its engineering features.

The range of locations of summer projects is matched by the range of structures that will be documented. The measured drawings and written histories which will analyze such features as the rammed earth construction of the Borough House, the spartan Neoclassicism of Monumental Church, and the relationship between the I & M Canal and its communities, will make this summer's projects valuable additions to the HABS/HAER collection.

The author is an architectural historian with the Historic American Buildings Survey.

The Teams

Jean P. Yearby

On a hot day in June, a group of young men and women, casually dressed, stand in awe in front of a magnificent 18th century plantation. They are not tourists, nor are they on a class assignment. This is a group of carefully-selected architectural students hired by HABS/ HAER to measure this structure and produce drawings for inclusion in the HABS/HAER collection at the Library of Congress. Scenes like this take place at the beginning of every summer, as HABS/HAER recording teams begin their work.

Since 1933 and 1969 respectively, HABS and HAER have recruited students of architecture, engineering and history to document America's architectural, engineering, and industrial heritage throughout the U.S. Whether a one-room, 18th century school house or a 90-mile long canal with its associated structures, a tide mill or a Gothic church, HABS/HAER recording teams have met the challenge.

Each December, attractive posters announcing summer job opportunities with HABS and HAER are distributed to schools with departments of architecture, landscape architecture, architectural history, technological history, American civilization, civil and mechanical engineering, material culture and/or historic preservation. Faculty members and career officers encourage their students to apply for these job opportunities. Nonstudents possessing equivalent training and/or experience in these fields are also encouraged to apply. In the spring, approximately 300-400 applications for employment are received by HABS/HAER. The applicants also submit supporting materials such as measured drawings, sketching and lettering samples, research papers, and portfolios of large-format photographs. On an average, over 1,000 sheets of sketching and lettering samples are judged, over 600 pages of research papers reviewed, and over 100 photographs carefully scrutinized. Based on the quality of this documentation, as well as letters of recommendation from professors and deans, approximately two-thirds of the applicants are deemed qualified for positions on a HABS/HAER recording team.

The team consists of 4 to 12 people, depending on the number of structures to be documented, the parameters of the sites to be inventoried, or the size of the structure.

Architects measure the structure and produce as-built drawings, historians use primary and secondary sources to produce historical reports, and photographers produce large format photographs to complete the documentation. The summer project lasts 12 weeks.

Team members sometimes live together, perhaps house-sitting for an owner who has fled to the Caribbean for the summer. Or, in Alaska, team members have to rough it, often camping out in remote areas while conducting an inventory of historic sites in the 12-million-acre Wrangell-St. Elias National Park and Preserve. Cosponsors of recording projects are often fortunate in finding housing for the teams, prior to their arrival at the project site. In 1976, a HAER team was formed to record the abandoned Hotel Florence in Pullman, IL, a suburb of Chicago. The project cosponsor made arrangements for the team to live in this once grand hotel. However, generally it is left up to the team members to make their own living arrangements, often the first time some have ever done so.

Team members tell stories of their experiences as part of a HABS/ HAER summer team. For example, in Atlanta, GA, a self-proclaimed "saviour" named Florence constantly preached to the team members documenting the Martin Luther King Site, swearing to save their souls from the "evils" of the NPS. Then there is the story about the "flasher" in Atlanta, who decided that a team member should study anatomy and not architecture! And the snakes among the ruins at the Salinas National Monument in Mountainair, NM, that constantly reminded the recording team that they were invading their home! An exercise in "squatters" rights?

Besides making new acquaintances, sharing common interests, and gaining experience in their respective fields, these students also get a sense of becoming a part of history by preserving some aspects of America's past. It provides a wonderful opportunity to go back in time.

The author is publications specialist with HABS/HAER.

HABS/HAER Documentation

Who Uses It?

Mary Ison

The HABS/HAER collection is the largest of its type in the world and is the most widely used in the Prints and Photographs Division of the Library of Congress. Over 20,367 structures from all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the Panama Canal Zone, have been recorded on 44,690 sheets of measured drawings, 112,692 large format photographs and 58,016 pages of written historical and architectural description. The wealth of historical, cultural and architectural information found in the drawings, photographs and written documentation included in this collection is available to all who are able to visit the collection or who can use it by mail. An understanding of the variety of users who take advantage of this opportunity is best illustrated by detailing some typical requests received by the Reading Room during one day.

Shortly after the Reading Room opens at 9:00 a.m., the staff is answering a telephone request about HABS/HAER material. How can a college student, researching the work of Frank Lloyd Wright for a semester project, find out what Wright buildings HABS/HAER has recorded?

Because it receives numerous questions about Wright buildings, the Library has compiled a written list of those included in the Survey. The student is promised that the list will be mailed that afternoon, along with a list of prices charged by the Library's Photoduplication Service.

A reader arrives at 9:30 to look at materials available on St. Charles County, MD. A retired government worker, the reader is working with a college to build up its collection of local history images and has come to the Library to determine what will be useful.

A telephone call is received at 9:45 from a person wanting a photograph of the Statue of Liberty surrounded by scaffolding for use on a cover of a church newsletter. The HAER recording project includes 139 views of the Statue, many with scaffolding. Requests for these images are so numerous that the Library has made a "selected list" of 15 HAER photographs, and has promised it to the reader.

The 10:15 mail brings six letters of the same pattern. Can the Library provide a list of all buildings in a particular county recorded by drawings showing a particular detail? One letter specifies stairway details found in Lancaster County, PA. Another asks for fences in Barnstable County, MA. To respond to these requests, an item-by-item search is required. This is not possible for the staff to provide. Instead, the librarians send computer printouts of the counties requested and an explanation of how low cost quick copies of the drawings can be obtained. An official in a small town in Nevada writes to request photographs and other images of one-room schools since their one-room schoolhouse is being restored.

In the past half hour several questions on the proper procedure for ordering copies of HABS/HAER documentation are received by telephone and in each case the building identification is checked on the computer printout, the prices for copies cited, and the address of the Photoduplication Service given.

A Library staff member on his lunch hour searches for a detail of plasterwork which might be used to replicate what was once in his Capitol Hill Victorian townhouse. The reader is taken to a file of HABS drawings of houses and is allowed to browse and search for the type of detail he needs. He is fortunate that he can make such a search in person, for it would be impossible for the reference staff to conduct such a time-consuming hunt.

A call is received at noon from a board member of the Hart City Library in Hart, WI, which is undergoing renovation to make it more accessible to the handicapped. The caller has seen a citation for the building in the catalog, *Historic America: Buildings, Structures and Sites* (Library of Congress, 1983) and hopes that the HABS collection contains copies of the original blueprints of the building. Although HABS measured drawings are rarely based on the architect's original drawings, the originals are sometimes photographed and included in the HABS photo documentation.

A doctoral candidate arrives at 12:40 p.m. to examine the holdings on department store interiors for her dissertation. The Library's card index to the HABS collection by subject yields several records which are brought out for the reader's use.

A reader, interested in obtaining photographs of outhouses to display on her bathroom wall, arrives at 1:30 to make a search. She is shown the subject index to HABS, completes several call slips for materials, and receives photographs to examine.

The afternoon mail arrives, bringing several letters of inquiry which require the use of the HABS/HAER collections. One is from a modelmaker who requests elevations of homes of U.S. Presidents so that accurate miniatures can be made. Another requests drawings of beehive ovens so that such an oven can be constructed. Still another comes from a private cultural resources consulting firm in Montana which is interested in receiving copies of HAER reports for industrial sites in the West. The writer provided specific references to 10 sites listed in the newly published HAER Checklist: 1969-1985, and requests ordering information.

A caller phoning at 2:55 wants to know how he can see copies of the drawings of Louisiana plantations without coming to Washington. He is told of the microfilm made in 1974 of drawings in the Library and given price information for the reel containing Louisiana buildings.

A family who has been sightseeing in Washington comes into the Reading Room at 3:30 to see the HABS drawings of Grant's Tomb. Copies are needed for the son's American History merit badge for the Boy Scouts.

A historian from Michigan arrives at 3:50 to research the history of Chinese workers in America. In addition to the Division's collection of political cartoons and prints, the researcher is shown the HABS documentation for the town of Locke, CA, an early 20th-century settlement of Chinese Americans.

The new owner of a building recorded by HABS telephones at 4:20. Told by the previous owner that records of the building are in the Library of Congress, the current owner is interested in receiving copies for his personal files.

It's 5:00 p.m. and the Reading Room will soon close, allowing only a few minutes to review the latest HABS subject list compiled by the Library staff to assist users. This one is on documentation of barns.

It is clear from these examples that the HABS/HAER collections at the Library of Congress are extensively used for a wide variety of purposes. In-person searching is needed for in-depth research or time-consuming searches, but published catalogs, illustrated books, microfiche of the photographs and written information and microfilm of the drawings, coupled with various printed reference aids produced by the Library's reference staff, make it possible to use the collections without a personal visit to the Library. The staff at the Library of Congress fulfills its responsibility to maintain the HABS/HAER collection for present and future use by the American public.

The author is a reference specialist in the Prints and Photographs Division at the Library of Congress.

HABS Photography: A Record In Detail

William Lebovich

In the slightly more than 50-year existence of HABS, the role of photography in the program and the quality of the photographs and photographers have increased considerably. Originally, photography was expected to play a modest role and to be done by the architects hired primarily for their drafting skills. For the last 25 years, HABS has had a full-time professional photographer and for even longer has used professional photographers on a part-time, contract basis. The result has been photographs that not only aid the architects in their delineation of the buildings, but that stand on their own merit as accurate depictions of the buildings being documented by HABS.

HABS Bulletin No. 11 of January 8, 1934 stated the following position on photography: "The photographs are for the purpose of record, so that it is more important that they be clear and sharp in their delineation of detail than that they be artistically composed or effective from a pictorial point of view."

It is still the goal of HABS photography to achieve clear and sharp delineations, but the photographs are also intended to be aesthetically pleasing. Harley McKee, in the HABS Recording Historic Buildings of 1970, reflected on the program's enhanced appreciation of the potential for architectural photography. He wrote, "Architectural photography also makes use of a creative approach in order to add to the purely factual aspect of a picture, the intangible attributes of which elevate 'architecture' above 'building.' Some subjects are more responsive than others; it is not always possible to obtain more than a pure record, but many times it is."

Much of the change in HABS' attitude toward photography reflects the work of staff architectural photographer Jack E. Boucher. Not only has Jack shot a prodigious amount of film—over 50,000 large format negatives of more than 6,000 structures in every state but Alaska—but the photography has been of outstanding quality. For the person interested in architecture, but without a background in measured drawings or architectural history, the photographs have been the means for using the HABS collection and for understanding and appreciating the buildings documented by HABS. Even for the architect or architectural historian, the photographs have been an invaluable tool in understanding the buildings studied.

Beyond the considerable technical expertise involved, Jack's photographs have succeeded better than drawings or histories in conveying the three-dimensional quality of architecture. In addition, Jack uses his photographs to isolate details that are often missed or not fully appreciated by someone actually walking through the structure. When we experience architecture we are trying to comprehend the spaces as well as the details and we seldom spend enough time absorbing it all. So we are left with strong impressions rather than a complete, accurate vision of the room. A series of photographs of the same room enable us to study the components of the room more slowly and carefully. Or sometimes important details are not easily seen by the casual observer. To capture the roof ornaments of Cliveden in Philadelphia, Jack had to use a cherry picker. The usual visitor to this magnificent 18th century mansion would not have access to a cherry picker and would not be able to appreciate this important ornamentation.

While the quality of HABS and HAER photography has continued to improve, the general quality of architectural photography has not. We are in the unfortunate position of seeing more and more architectural photographs being created and used in publications and lectures, yet there is no discernible improvement in quality. In the belief that photographers are not getting better because they do not have benchmarks with which to compare their work, HABS, with the Library of Congress and the support of the American Institute of Architects, mounted a traveling exhibition of Jack Boucher's architectural photography.

This is not simply a way of further honoring a man who has already received most of the honors available for a photographer, but of demonstrating what good architectural photography is from a technical, aesthetic, and architectonic viewpoint.

The author is an architectural historian with HABS/HAER.

Mission Project Brings Praise from Park and Region

Kenneth L. Anderson, AIA

In 1983, the NPS Southwest Cultural Resources Center reactivated the Historic American Buildings Survey's summer recording program in the Southwest Region to document historic properties in the national parks. The park that was selected to initiate this effort was the newly established San Antonio Missions National Historical Park in San Antonio, TX.

The San Antonio Missions National Historical Park, authorized in 1978, became operational as a national park on April 1, 1983, under an agreement with the Roman Catholic Archdiocese of San Antonio. Under this agreement, the archdiocese would retain control of the structures used by the church and the NPS would manage the sites as a national park—opening the sites to the public and maintaining the secular structures.

This national park contains four of the five Spanish colonial missions in San Antonio—Mission Nuestra Senora de la Purisima Concepcion de Acuna, Mission San Jose y San Miguel de Aguayo, Mission San Juan de Capistrano, and Mission San Francisco de la Espada. The fifth mission, recorded by HABS in 1961, is Mission San Antonio de Valero (the Alamo), and is operated by the Daughters of the Republic of Texas.

"With the exception of the Alamo, the missions are still living parishes, and continue to serve the purpose for which they were established more than 200 years ago," according to park superintendent Jose Cisneros. "They remain active churches and the lands around San Juan and Espada are much as they were in the 18th century—rural land under cultivation."

These missions, which represent a provincial interpretation of Spanish Baroque architecture, were chosen to be a pilot regional project for several reasons:

- The park and cultural resources center were researching and preparing a Historic Structures Report, and HABS drawings could be directed to support the document;

- Jobs Bill funds were scheduled to be used on several of the historic structures, and a HABS team could produce measured drawings immediately to be used by the regional office and the Denver Service Center to support the stabilization effort;

- HABS records were produced on these missions by the Survey in the 1930s (17 sheets of drawings and 115 large format photographs), and a 1983 addendum would provide HABS an opportunity to update the earlier records by noting the deterioration, modifications, and additions that had occurred over the last half century.

The 1983 HABS team was directed to produce drawings on the four missions' plans (labeling existing plantings with botanical, common English and common Spanish names), and the two structures to be stabilized at San Juan and Espada, and to comprehensively record Concepcion. HAER photographer Jet Lowe provided additional photo documentation at these sites, duplicating the angles and photographs produced by Arthur W. Stewart in 1936.

The HABS recording activities drew much attention to the missions with newspaper articles, radio and television coverage and write-ups by Texas Architect and Time

magazines. The publicity which the park and the missions received and the drawings produced by the HABS team members were so useful to the park that the park superintendent agreed to locate funding to support two additional summer projects to record the other three missions.

The 1983 missions recording endeavor also proved to be an ideal project for the Southwest Regional Office (SWRO). Based on the success of the mission project, the Cultural Resources Center agreed to cosponsor two additional projects for the following summer: Lyndon B. Johnson National Historical Park, Johnson City, TX, and Hot Springs National Park, Hot Springs, AR.

In 1984, the missions project was funded through the park with park funds and donations. Again, using earlier HABS drawings, the Survey and the park agreed to concentrate on the site most urgent to the park's needs—Mission San Jose y San Miguel de Aguayo. Since the project was partially funded with donated funds, half of the project could provide additional drawings on the church and the other portion funding structures within the mission such as the granary, Spanish residence, and ruins of the convent.

The summer 1985 recording project, designed to complete the HABS documentation of the missions, was funded entirely outside of the park by Los Compadres de San Antonio Missions National Historical Park—a private organization established to support the missions and the park. Since nonfederal funds were provided for the recording of Mission San Francisco de la Espada and Mission San Juan de Capistrano, HABS had the option of documenting Park Service maintained sites or church properties. At Espada, the team concentrated on recording the church, particularly the stone attrition and changes that occurred at the decorative limestone entrance; they also produced records on ruins of the late colonial church, granary, and Indian quarters. A similar approach was taken at San Juan, highlighting the church, but also recording the convent, entrance gate, and the reconstructed Indian quarters which are now being used as an office and rectory. The changes that have occurred to the Indian quarters are of particular interest when comparing the early 1930s drawings and photos to the more recent drawings and photos reflecting the present site.

During the past three summers HABS spent recording these missions, the teams were very careful to avoid duplicating drawings produced during the 1930s. Often sections were cut, however, which would include elevations recorded earlier to reveal the relationship and scale between connecting buildings. Contrasting the quality of the documentation from the 1930s and this most current recording effort is difficult—the earlier drawings were recorded at a smaller scale, often $1/6" = 1'-0"$ to accommodate the 19" x 24" sheet size; recent drawings were drawn at a larger scale, $3/16"$ and $1/4" = 1'-0"$ because of the larger 24"x36" sheet size. The larger scaled drawings offered an opportunity to provide more detailed depictions of floor plans, sections, elevations, and details. All of the recent drawings produced for the missions were stipulated to complement, enhance, and provide more comprehensive coverage on the nationally significant sites.

An agreement with the SWRO has been completed that will provide the funding and guidance for a fourth San Antonio Missions project to be conducted at the Southwest Cultural Resources Center in Santa Fe, NM. The 1986 project will produce annotations to be included on the previous summer's drawings based on the research and data obtained from the Historic Structures Report researched and written under the direction of Marlys Bush Thurber, historical architect. Once the missions' documentation has been annotated reflecting dates of construction, materials, and modifications, the HABS San Antonio Missions project will be one of the most complete and informative sets of drawings in the Survey's collections at the Library of Congress.

"The question may well be asked: What benefits can the San Antonio Missions or other areas in the National Park System expect to derive from HABS recording? To architects and cultural resource managers, one answer is immediately apparent—the continued preservation of the resource," stated Marlys Thurber. "First, the drawings can help in assessing the physical condition of a historic structure. By providing a precise

record of the structure, including any cracks, bulges, or other evidence of structural problems, HABS drawings give exacting information of its condition at the time the drawings were made. Second, the drawings can help to guide the restoration work. Building components such as windows can be drawn as exploded views to reveal their techniques of construction and methods of assembly. Drawings such as these can then be used, as they were at San Antonio, to fabricate accurate replacement elements. HABS drawings can also be used generally as a measure of quality or standards to be achieved in the work."

The Southwest Cultural Resources Center is committed to the continuation of HABS work in the Region's parks. In the Southwest Region, HABS has proven its cost-effectiveness. There has been a significant return on dollars spent, and opportunities yet lie ahead for enhancement of the public-private sector partnership role HABS has successfully used.

The author is Chief of the Historic American Buildings Survey

Landscape Recording: Expanding the Tradition

Paul Dolinsky

The artistic and, scientific aspects of historic preservation of architecture have developed to such a refined degree that it was only natural that new areas of specialization should begin to appear. As specific building restorations were completed, people began to explore interrelationships between buildings, historic complexes and districts and, inevitably, the term landscape preservation was coined. Renewed interest in the great 19th century naturalistic landscapes of Frederick Law Olmsted has served as a catalyst for a national movement to address these complex issues.

During the summer of 1985 a measured drawings project was undertaken at Meridian Hill Park, part of the Rock Creek Park system of the NPS National Capital Region, Washington, DC. Constructed of exposed aggregate concrete, Meridian Hill Park is basically a combination of French and Italian Renaissance garden elements with the primary features being a grand esplanade and terraced water cascade. A complete set of architectural base maps were first on the agenda. To do this, five large HABS sheets linked by matchlines were required. Plant locations were delineated on five matching overlays with graphic representations of trees, shrubs and vines as well as trunk caliper and canopy sizes. Although this graphically captured the site, it did not address its landscape quality. Photography served as the most valuable tool to capture this ever-changing nature. A complete set of 4 x 5 traditional HABS photographs were taken of the whole park. These were supplemented by five views that were half-toned and printed at a large scale onto HABS Mylar. These five views were chosen since they reflected five areas of the park which are of particular historic design importance as well as five areas that have seen significant change. Based on historic photographs and research, some of these areas were reconstructed on Mylar overlays. Furthermore, some resources of particular architectural interest were detailed in a traditional HABS format.

Although a comprehensive written landscape history has not been undertaken, the measured drawing and photographic coverage served as an excellent vehicle for experimentation. In the near future HABS will be looking for a more naturalistic landscape to record in anticipation of expanding our guidelines for landscape architecture documentation.

The author is a landscape architect with the Historic American Buildings Survey.

Maritime Recording: A HAER Initiative

Richard K. Anderson, Jr.

In October, 1985, HAER participated with the National Trust for Historic Preservation and with Northwest Seaport, Inc. in "lifting the lines" of the three-masted schooner Wawona in Seattle, WA. This was the first project which HAER undertook to record a ship and develop NPS standards and guidelines for the documentation of large vessels.

Wawona was built in 1897 by H.D. Bendixsen in Fairhaven, CA, to transport lumber along the Pacific Coast. Retired from the cod-fishing trade in 1948, she is one of only two such ships by Bendixsen

known to survive, the other being C.A. Thayer, now berthed at the National Maritime Museum in San Francisco. Wawona was also the first ship to be listed in the National Register of Historic Places (1972). Northwest Seaport, Inc., owner of Wawona, is anticipating a two-million dollar restoration of the vessel.

Using a grant from the Washington State Office of Archeology and Historic Preservation, Wawona was dry-docked at the Lake Union Drydock Company in Seattle where her hull contours were recorded by a combination of electronic surveying equipment and traditional hand measurement. The work was performed by a team of naval architects, shipbuilders, and HAER staff members during the National Trust's 39th annual conference on historic preservation.

The HAER office is preparing the line drawings and 60 large-format (5" x 7") black-and-white photographs. Pacific Schooner Wawona, a recently published and very comprehensive history of the Wawona by Harriet Tracy DeLong, was released at the time of the conference.

This project was one outgrowth of a movement among maritime museums and preservationists nationwide to develop preservation standards for maritime resources analogous to the Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings. While others have been pursuing standards in conservation and restoration of historic vessels, a special task force sponsored by the National Trust has developed a preliminary set of guidelines for historic vessel documentation. HAER, which already has well-developed standards and guidelines for documenting land-based engineering and industrial sites, is planning to carry this effort forward to completion. In effect, HAER hopes to revive in practice, if not in name, the old Historic American Merchant Marine Survey (HAMMS) which succeeded in recording 455 vessels during its short lifespan (1935-37). The records—photographs, written data, and superlative measured drawings—are maintained by the Maritime Division of the Smithsonian's National Museum of American History. HAER records of vessels would be similar in kind (though following modern HAER standards), and the records would be transmitted to the HAER Collection at the Library of Congress.

Documentation serves many needs, among them planning, maintenance, restoration, and "insurance" against total or partial loss of a resource. As a national inventory of significant American vessels proceeds, it is increasingly apparent that many worthy vessels cannot be preserved due to limited funds, time, skills, and interest. Documentation in most cases will provide a thorough record of a vessel's significant features at a fraction of the cost of preservation and ongoing maintenance, thus ensuring against an irretrievable loss of what remains of American maritime heritage.

The author is a staff architect with the Historic American Engineering Record.

HABS/HAER In Alaska

Robert L. Spude

There are simple lifestyles in the far north: fish camps where families harvest salmon from the Yukon River to feed themselves and their essential dog teams; trapper cabins centered in a lake-covered Aleutian peninsula lowland with traplines leading like spokes to the winter harvest grounds of furs; miners' camps, their shafts to bedrock and simple mechanisms to wash gold from the Koyukuk placer country in the summer. These sites are representatives of the "sourdough" lifestyles rapidly passing from the Alaska scene. Within the last few years the Alaska Regional Office has focused on preserving information about the physical remainders of these ways of life through HABS/HAER recording projects within the new Alaska parks.

In 1980 Congress passed the Alaska National Interest Land Conservation Act, creating 44 million acres of new parks, preserves, or monuments and tripling the size of the NPS system. These vast expanses include an uncounted number of cultural resources. Three of the new parks have been inventoried under standard NPS guidelines. Select sites, some of which due to their isolation will be left to deteriorate, have been recorded. The Alaska Region has actively pursued HABS/HAER recordation to insure that representative sites will receive "preservation through documentation."

This work has received much support from the Washington Office. After the Heritage Conservation and Recreation Service was abolished in 1981, HABS/HAER Chief Robert Kapsch agreed to provide staff and technical assistance to the Alaska Regional Office. Because Alaska lacks a school of architecture and graduate history program, our ability to use the HABS/HAER summer employee recruitment system has also been crucial. Three goals would be met through the HABS/HAER program in Alaska: inventory, preservation of significant sites through documentation, and assistance with small-scale historic structures reports (HSR).

Since 1981, inventories have been conducted at Lake Clark, Wrangell-St. Elias, and Gates of the Arctic National Parks. In many cases, the challenge of the inventory has been simply to locate remote cabins. Besides assessing the sites' significance, the historians have placed these sites in the greater context of the area's history.

The recordation of historic cabins is a major means of providing some form of preservation for resources which are not likely to receive funding for maintenance because of isolation and limited use. HABS/HAER photographer Jet Lowe has documented several of these sites with large-format photographs. Besides serving as a record of the resource, the photographs have been used by park personnel for interpretation and education.

But the HABS documents have also become components in HSRs developed by the Alaska Regional Office. Standard HSRs contain histories and as-built drawings. In Alaska, simple log structures have been recorded to HABS standards, the drawings being used as the as-builts. Student architects and historians worked under the regional historical architect, Dave Snow, and the regional historian, Bob Spude. They prepared HABS record drawings of cabins in the gold rush town of Chisana, in Wrangell-St. Elias National Park and Preserve, of roadhouses in Yukon-Charley Rivers National Preserve, of rustic structures in Alaska's best-known park, Denali, and of gold rush era structures along the Chilkoot Trail in Klondike Gold Rush National Historical Park. These HSRs are given official review and meet NPS standards. In this way, HABS/HAER drawings serve two purposes: a permanent record in the Library of Congress and an important part of the HSR which are necessary to parks for cultural resource planning.

Alaska has also completed several recording projects within parks but on private lands as part of a good neighbor policy. The former copper camp of Kennecott, still privately owned, abuts the magnificent Kennicott glacier in the Wrangell mountains and

within Wrangell-St. Elias National Park and Preserve. It is a destination point for many park visitors. The Alaska Regional Office has initiated a project to record the copper milling process of the plant and the buildings within this classic copper camp, active from 1910 to 1938.

While the new Alaskan parks are best known for their unparalleled wildernesses and rugged landscapes, they do contain cultural resources that merit attention. The various uses of the HABS/HAER program have been invaluable to the Alaska Regional Office's attempt to identify and protect those resources.

The author is regional historian in the Alaska Regional Office.